

Commute Shed Analytics

*Presented to the MAG Economic Development Committee
May 2, 2017*



FILE Home Insert Page Layout Formulas Data Review View Developer INQUIRE ACROBAT XL Toolbox NG

Calibri 11 A A

General

Normal_Sheet1 Normal_Sheet2 Normal_Sheet3

AutoSum

MagId	EmpName	AltName	Address	Jurisdiction	State	Zip	County	Employees	Latitude	Longitude	Cluster	SubCluster	Naics2	NAICS2_DES	Naics3	NAICS3_DES
35686	Arizona State University	Asu Main Emp	400 E Orange	TEMPE	AZ	85287	MARICOPA	8811	879786.29882	694786.20557	Education	Education	61	Educational Se	611	Educa
35801	Intel Corporation	Chandler Camp	5000 W Chandl	CHANDLER	AZ	85226	MARICOPA	6335	839621.45724	695418.54715	High Tech Man	Semi-Conducto	33	Manufacturing	334	Comp
88733	Intel Corporation	Ocotillo Camp	4500 S Dobson	CHANDLER	AZ	85248	MARICOPA	4933	815293.39402	710233.64187	High Tech Man	Semi-Conducto	33	Manufacturing	334	Comp
69921	Banner Health	Banner Desert	1400 S Dobson	MESA	AZ	85202	MARICOPA	4866	869732.49216	712037.67435	Health Care	Health Care	62	Health Care an	621	Amb
36323	United States Department Of The Air Force	Luke Afb 56th	13970 W Lightn	GLENDALE	AZ	85309	MARICOPA	4467	925802.69235	562720.31091	Government, S	Government	92	Public Adminis	928	Natio
36295	U Haul	Uhaul Internat	2727 N Central	PHOENIX	AZ	85004	MARICOPA	3964	901714.30024	652241.18895	Business Svcs	Advanced Busi	55	Management c	551	Mana
76963	Banner Health	Banner Corpor	1441 N 12th St	PHOENIX	AZ	85006	MARICOPA	3913	896400.15109	657720.44866	Health Care	Health Care	62	Health Care an	621	Amb
212351	Banner Health	Banner Good S	1111 E Mcdowe	PHOENIX	AZ	85006	MARICOPA	3800	896489.91371	656655.3924	Health Care	Health Care	62	Health Care an	621	Amb
182769	St Josephs Hospital	St Josephs Hos	350 W Thomas	PHOENIX	AZ	85013	MARICOPA	3757	902980.71897	650029.81378	Health Care	Health Care	62	Health Care an	622	Hosp
35889	Boeing Co	E Mcdowell	5000 E Mcdowe	MESA	AZ	85215	MARICOPA	3717	899255.7799	758547.40219	High Tech Man	Aerospace	33	Manufacturing	336	Tran
60001	Mayo Clinic	Mayo Hospital	5777 E Mayo Bl	PHOENIX	AZ	85054	MARICOPA	3621	967287.22159	687767.67958	Health Care	Health Care	62	Health Care an	622	Hosp
36570	Bank Of America	Phoenix Camp	1825 E Buckeye	PHOENIX	AZ	85034	MARICOPA	3360	885462.41542	662099.81851	Finance, Insura	Financial	52	Finance and In	522	Cred
35699	Carl T Hayden Va Medical Center	Carl T Hayden	650 E Indian Sc	PHOENIX	AZ	85012	MARICOPA	3124	908374.1465	654236.90478	Health Care	Health Care	62	Health Care an	622	Hosp
38268	Honeywell	Deer Valley	21111 N 19th A	PHOENIX	AZ	85027	MARICOPA	3000	974786.02713	645124.66316	High Tech Man	Aerospace	33	Manufacturing	336	Tran
92988	Usaa Phoenix Office	Usaa	1 N Norterra Pl	PHOENIX	AZ	85085	MARICOPA	3000	989626.30257	640695.22451	Finance, Insura	Financial	52	Finance and In	522	Cred
72265	General Dynamics C4 Systems Inc	Scottsdale	8201 E Mcdowe	SCOTTSDALE	AZ	85257	MARICOPA	3000	895577.36173	703769.7588	Business Svcs	Advanced Busi	54	Professional, S	541	Prof
92770	Banner Health	Banner Thunde	5555 W Thunde	GLENDALE	AZ	85304	MARICOPA	2856	949317.28677	619983.32228	Health Care	Health Care	62	Health Care an	622	Hosp
62974	Discover Financial Services	Discover Finan	2402 W Beards	PHOENIX	AZ	85027	MARICOPA	2818	971895.66743	641061.83073	Finance, Insura	Financial	52	Finance and In	522	Cred
36001	Cvs Pharmacy Inc	Cvs Caremark C	9501 E Shea Blv	SCOTTSDALE	AZ	85258	MARICOPA	2800	938756.21139	712302.04193	Business Svcs	Advanced Busi	55	Management c	551	Mana
35674	Us Airways Inc	Sky Harbor Airp	3400 E Sky Har	PHOENIX	AZ	85034	MARICOPA	2585	885711.93853	672611.11737	Transportation	Transportation	48	Transportation	481	Air Tr
92660	Salt River Pima Maricopa Indian Community	Talking Stick C	9800 E Indian B	SALT RIVER PIN	AZ	85256	MARICOPA	2500	924075.896640457	714276.854116701	Hospitality, To	Hospitality, To	71	Arts, Entertain	713	Amus
36114	Honorhealth	Osborn Campu	7400 E Osborn	SCOTTSDALE	AZ	85251	MARICOPA	2500	905258.55234	698092.11858	Health Care	Health Care	62	Health Care an	622	Hosp
84040	American Express	Amex Service C	20022 N 31st A	PHOENIX	AZ	85027	MARICOPA	2500	970254.63167	635635.15064	Finance, Insura	Financial	52	Finance and In	522	Cred
182573	Vanguard	Vanguard Grp f	14321 N North	SCOTTSDALE	AZ	85260	MARICOPA	2500	951202.6094	706177.49381	Finance, Insura	Financial	52	Finance and In	525	Fund
270247	Bank Of America		2565 W Chandl	CHANDLER	AZ	85224	MARICOPA	2494	838554.81567	708984.83793	Business Svcs	Business Supp	56	Administrative	561	Admi
299107	Amazoncom	Amazoncom P	5050 W Mohavi	PHOENIX	AZ	85043	MARICOPA	2494	884956.27962	623924.18325	Retail	Retail	45	Retail Trade - R	454	Non
35684	Pinnacle West Capital Corporation	Aps Palo Verde	5801 S Winters	MARICOPA CO	AZ	85354	MARICOPA	2330	871075.70377	409707.89042	Resource-Depe	Utilities	22	Utilities	221	Util
429995	State Of Arizona	Corrections De	1305 E Butte A	FLORENCE	AZ	85132	PINAL	2300	739168.200852245	867199.047155119	Government, S	Government	92	Public Adminis	922	Just
65782	Charles Schwab Co Inc	Phoenix Peak E	2423 E Lincoln	PHOENIX	AZ	85016	MARICOPA	2292	920598.82776	665744.74659	Business Svcs	Advanced Busi	55	Management c	551	Man
36042	Phoenix Childrens Hospital	Pch E Thomas	1919 E Thomas	PHOENIX	AZ	85006	MARICOPA	2262	901789.07404	662262.2985	Health Care	Health Care	62	Health Care an	622	Hosp
38281	Banner Health	Banner Baywo	6644 E Baywoo	MESA	AZ	85206	MARICOPA	2170	877241.82064	769420.0061	Health Care	Health Care	62	Health Care an	621	Ambu
38262	Honeywell	Enginesms 401	111 S 34th St	PHOENIX	AZ	85034	MARICOPA	2166	890108.58428	672838.60904	High Tech Man	Aerospace	33	Manufacturing	336	Trans
35871	Maricopa Integrated Health Systems	Maricopa Integ	2601 E Rooseve	PHOENIX	AZ	85008	MARICOPA	2133	894023.28118	666578.58252	Health Care	Health Care	62	Health Care an	622	Hosp
64333	American Express	American Expr	18850 N 56th St	PHOENIX	AZ	85054	MARICOPA	2100	967026.99344	686033.05739	Finance, Insura	Financial	52	Finance and In	522	Cred
88741	Apollo Group Inc	Online Campus	3157 E Elwood	PHOENIX	AZ	85034	MARICOPA	2000	879295.97402	670247.52761	Education	Education	61	Educational Se	611	Educa
226517	Abm Industries Inc		2631 S Rooseve	TEMPE	AZ	85282	MARICOPA	2000	873393.3483	690669.473153	Business Svcs	Business Supp	56	Administrative	561	Admi
36115	Honorhealth	Shea Campus	9003 E Shea Blv	SCOTTSDALE	AZ	85258	MARICOPA	1975	938368.19347	709520.02387	Health Care	Health Care	62	Health Care an	622	Hosp
35665	Arizona State University	Downtown Em	502 E Monroe S	PHOENIX	AZ	85004	MARICOPA	1938	891605.37197	654349.61387	Education	Education	61	Educational Se	611	Educa
35888	Mayo Clinic	Mayo Clinic Sc	13400 E Shea Bl	SCOTTSDALE	AZ	85259	MARICOPA	1884	940708.51228	737396.10887	Health Care	Health Care	62	Health Care an	621	Amb
37321	Jpmorgan Chase Bank National Association	Headquartersb	241 N Central A	PHOENIX	AZ	85004	MARICOPA	1800	891613.22957	652254.76898	Finance, Insura	Financial	52	Finance and In	522	Cred

40

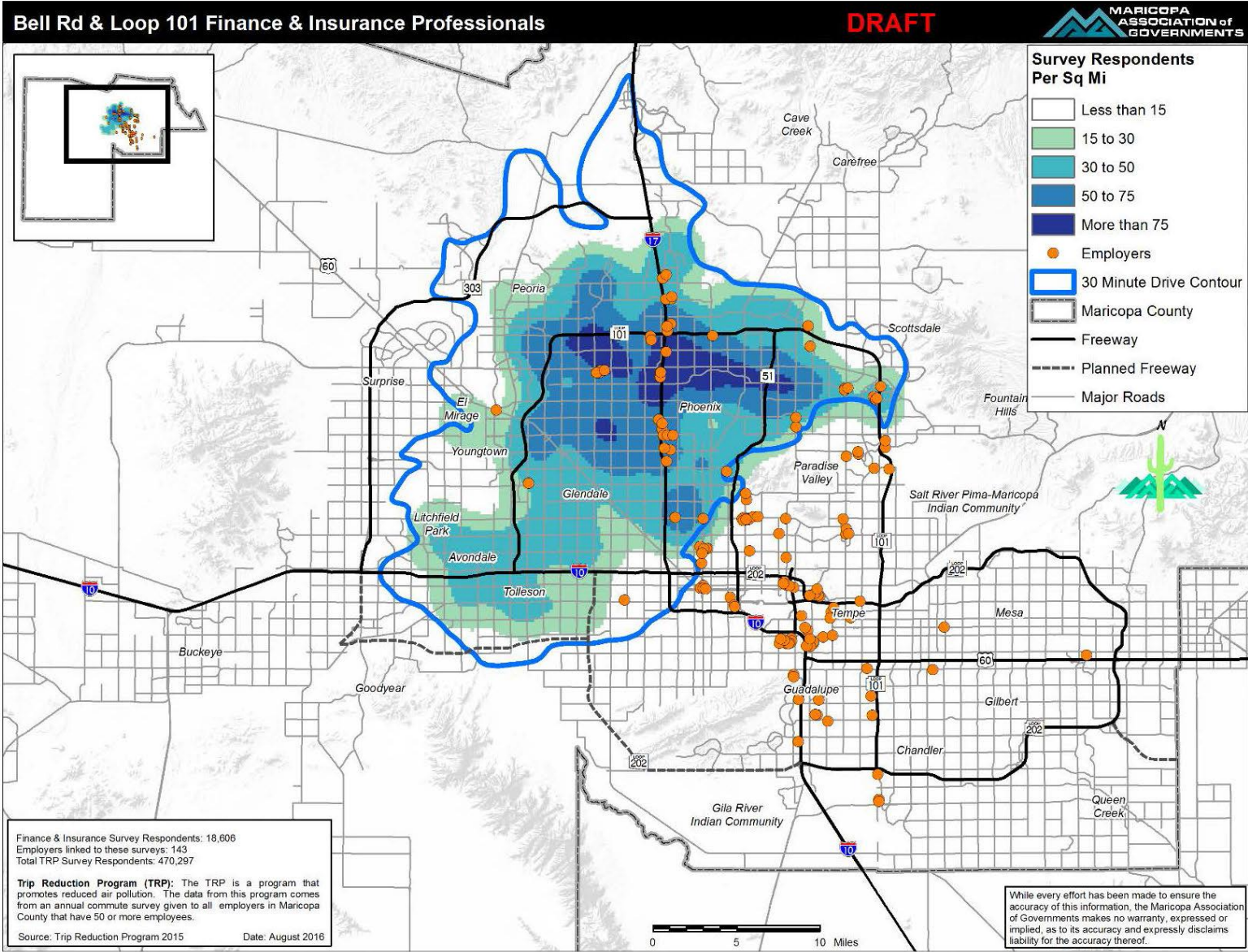
41

*“Data just don’t leap off
the page and convert
themselves into
high-quality, useful
information.”*

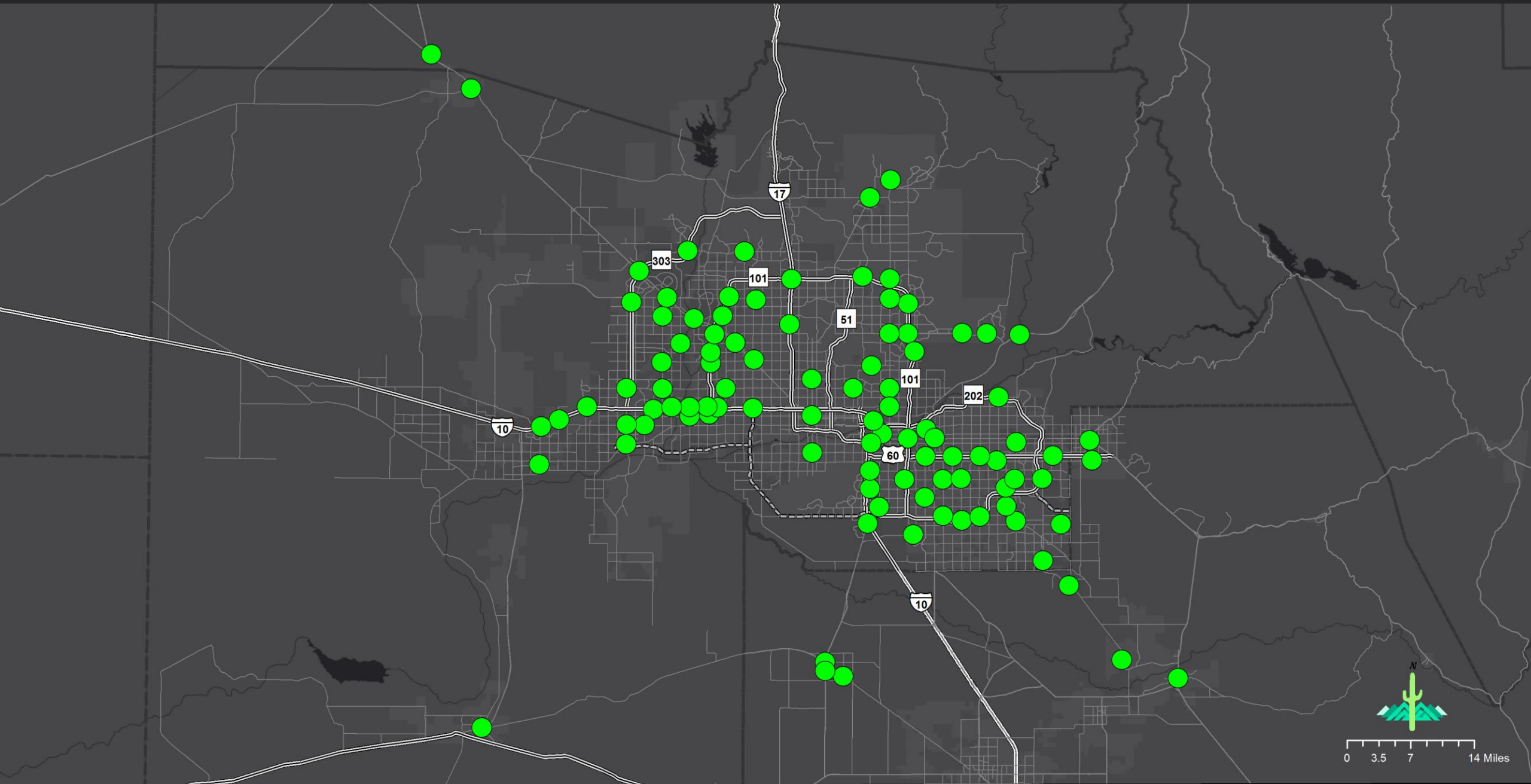
-Slotnick & Orland

Travel Time within 30 Minutes to Bell Road and Loop 101

Finance and Insurance



Commute Shed Intersections



Household Income



Household Income

Top Employers

The map in the right shows the locations of each of the employers with the fewest deaths within the state. The employers with the most deaths are located in the southeast. The map also shows the number of deaths for each employer. The number of deaths for each employer is shown in the number of stars next to the employer's name. The number of deaths for each employer is shown in the number of stars next to the employer's name.

Top 10 Employers

The table at the bottom left gives a list of the top 10 employers in the state. The table lists the employer's name, the number of deaths, and the number of employees. The table lists the employer's name, the number of deaths, and the number of employees.

Top 10 Employers



Worker Commuter Cycle

- Live Outside: 560,090
- Use & Work Inside: 146,806
- Work Outside: 130,391

Source: Longitudinal Employer-Household Dynamics Program (LEHD), U.S. Department of Commerce (DOC)



Source: 2015 MAGI Employer Database, job postings in

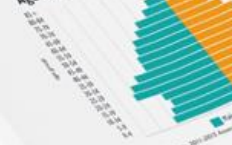


The chart to the left shows that relative labor force participation rates and total civilian labor force for the combined states of Pennsylvania, Michigan, and the U.S. The chart compares the two non-unionized states for the combined states, their percentage of the non-unionized workforce, and shows there are no significant differences in the U.S. and Pennsylvania.

The Phoenix Post-Insurable Photographic-Signaled Area (PPISA) is a map of Maricopa County and Pinal County that was developed by the Arizona Department of Health Services (ADHS) in 1994. The map was developed to show the location of all known and suspected cases of Hepatitis A in the Phoenix area. The map was developed to show the location of all known and suspected cases of Hepatitis A in the Phoenix area. The map was developed to show the location of all known and suspected cases of Hepatitis A in the Phoenix area.



Age Distribution in Commute Shed



Source: U.S. Census Bureau, 2001-2005 American Community Survey (ACS) 5-year Estimates

Commute Shed Analytics

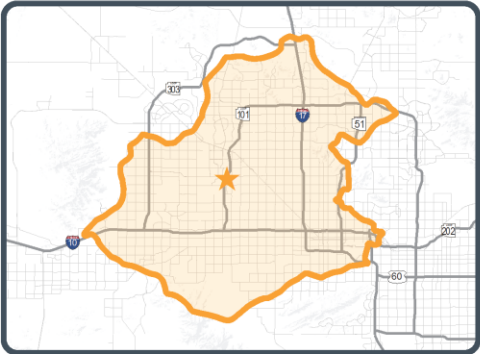
30 Minute A.M. Inbound Travel Time to Glendale Ave and State Route 101, Glendale



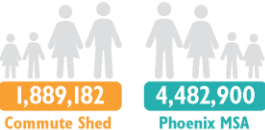
The Phoenix-Mesa-Scottsdale Metropolitan Statistical Area (MSA) is made up of Maricopa County and Pinal County. For this document, the MSA is referred to as the Phoenix MSA. Within the Phoenix MSA, the average commute time is about 26 minutes, which is slightly less than the US average. Rounding to a 30 minute commute time provides a useful picture of the residents, workers, and employers near a given location. Note: for some rural communities, a 45 minute commute shed was used because a wider area of analysis was necessary.

The map to the right shows the area from which a worker can commute in 30 minutes or less to a location near Glendale Avenue and State Route 101, Glendale. The analysis in this document compares data from within this 30 minute commute shed to similar data for the MSA and the nation.

This analysis provides a brief overview of available data for the commute shed. To inquire about a more detailed analysis refer to the contact information on page 4.



2015 Population



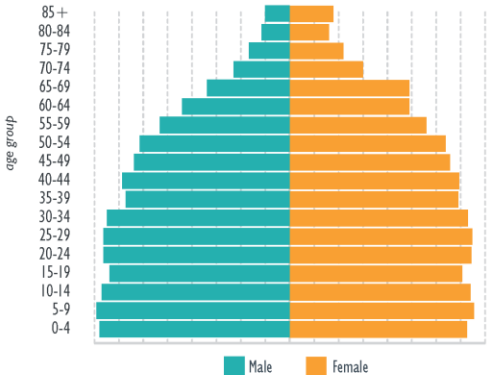
Source: Arizona Office of Economic Opportunity
2015 Population Estimates

Projected Population

2020 Projection	2030 Projection	2040 Projection	2050 Projection
Commute Shed 2,068,823	Commute Shed 2,358,661	Commute Shed 2,544,045	Commute Shed 2,662,606
Phoenix MSA 4,944,400	Phoenix MSA 5,884,900	Phoenix MSA 6,831,700	Phoenix MSA 7,733,900

Source: Maricopa Association of Governments (MAG), 2016 Population Projections. The Phoenix MSA is the Phoenix-Mesa-Scottsdale Metropolitan Statistical Area (MSA). Its geographic boundary includes the combined area of Maricopa and Pinal counties.

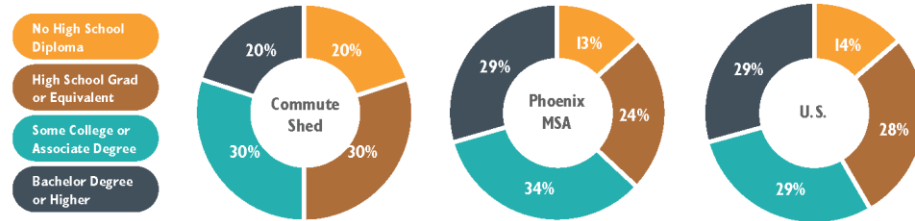
Age Distribution in Commute Shed



Source: U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-year Estimates



Educational Attainment for the population age 25 years and older



Source: U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-year Estimates

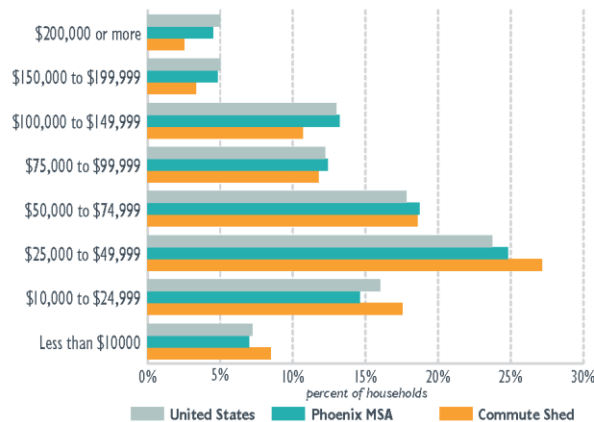
ASU and UofA Graduates by Degree

Thanks to a partnership with Arizona State University and University of Arizona, MAG has collected degree data on graduates by place of residence. While not a complete picture of graduates, this table is a representation of college degrees earned by residents from 1980 to 2016.

Degree Category	Phoenix MSA	Commute Shed	Degree Category	Phoenix MSA	Commute Shed
Aerospace	2,298	332	Law	4,852	1,728
Agriculture	1,595	461	Mathematics	1,571	489
Art	8,156	2,533	Medical	40,483	13,054
Business	47,343	13,396	Multiple	9,126	2,095
Criminal Justice	3,639	2,031	Political	6,010	1,949
Design & Construction	7,078	1,857	Science	9,575	3,208
Education	35,924	13,523	Social	21,281	7,518
Engineering	15,937	3,280	Technology	13,061	2,828
Information	23,285	7,415	Tourism	1,782	587

Source: Arizona State University (ASU); University of Arizona (UofA)

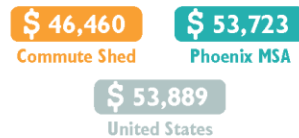
Household Income



Source: U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-year Estimates

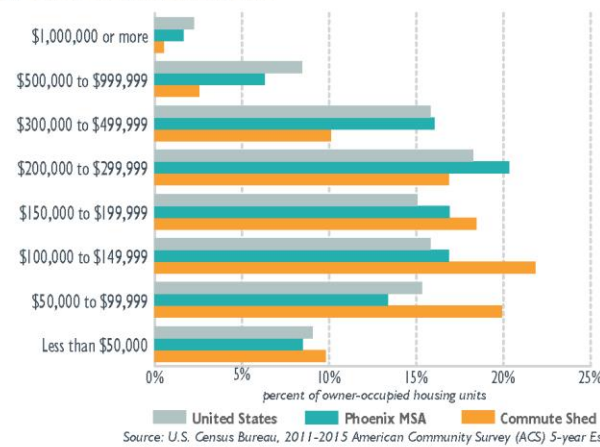


Median Household Income



rev. 04/12/2017

Housing Values for owner-occupied housing units



Source: U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-year Estimates



Median Home Value



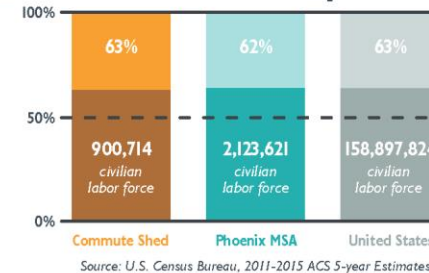
Source: U.S. Census Bureau, 2011-2015 ACS 5-year Estimates

Median Sales Price



Source: Information Market

Labor Force Participation Rate



Source: U.S. Census Bureau, 2011-2015 ACS 5-year Estimates

The labor force participation rate is the percentage of the population age 16 and over who are either employed or are unemployed but looking for a job. In the United States the participation rate hovered between 66 and 67 percent until the Great Recession. Since then the rate declined to around 63 percent and has remained at that level since 2014.

The chart to the left shows the relative labor force participation rates and total civilian labor force for the commute shed, Phoenix MSA, and the U.S. The chart below shows the top ten occupations for the commute shed, their percentage of the commute shed's workforce, and where those ten occupations rank in the U.S. and Phoenix MSA.

Major Occupations of Residents for the civilian employed population 16 years and over	Commute Shed Percentage	Phoenix MSA Percentage	United States Percentage
Office and administrative support	15.5	14.9	13
Management, business, and financial	12.7	15.4	15.1
Sales and related	11.4	12.1	10.6
Healthcare practitioners, technical, and support	7	7.4	8.2
Construction and extraction	6.3	4.8	5.1
Food preparation and serving related	6.2	5.9	5.9
Building and grounds cleaning and maintenance	5.8	4.4	3.9
Production	5.1	4.3	6
Education, training, and library	4.6	5.2	6
Computer, engineering, and science	4.1	5.7	5.5

Source: U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-year Estimates
Note: not all occupations are listed; percentages may not add up to 100 percent

rev. 04/12/2017

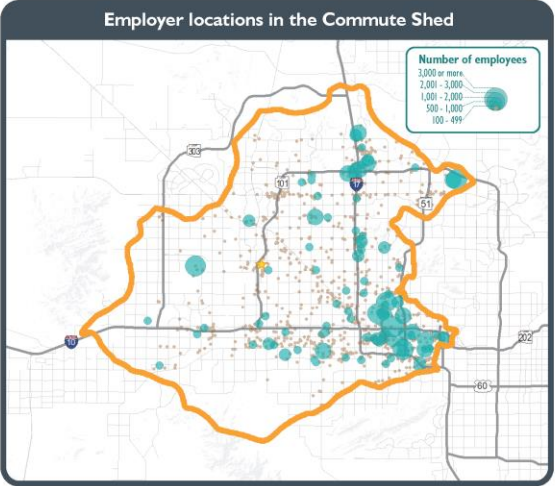
Top Employers

The map to the right shows the locations of each of the employers with five or more employees within the commute shed. The size of the dots indicates the size of the employer based on its total number of employees. Below is a list of the top ten employers, based on total number of employees, within the commute shed.

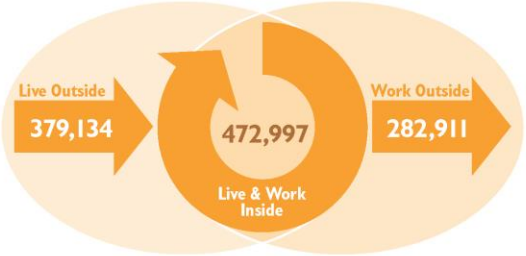
The table at the bottom left groups similar employers together in Industry Clusters, and ranks the top ten Industry Clusters within the commute shed by the total number of employees in the cluster.

Top 10 Employers	Jobs
State Of Arizona	18,600
Banner Health	13,600
County Of Maricopa	11,100
City Of Phoenix	10,400
Honeywell	7,800
Walmart	7,000
Frys Food Stores	5,600
American Express	5,500
United States Department Of The Air Force	5,400
Wells Fargo	5,000

Source: 2015 MAG Employer Database, numbers rounded



Worker Commute Flows



Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program (LEHD)
Origin-Destination Employment Statistics (LODES)

Top 10 Industry Clusters by Jobs

Industry Cluster	Businesses	Jobs
Health Care	1,753	76,200
Business Svcs	2,268	74,100
Government, Social, & Advocacy Svcs	1,589	73,500
Retail	2,275	69,600
Consumer Svcs	2,797	60,500
Education	782	56,900
Finance, Insurance, & Real Estate (FIRE)	1,273	56,600
Construction	2,020	55,600
Transportation & Distribution	1,406	55,100
Hospitality, Tourism, & Recreation	454	14,700

Source: 2015 MAG Employer Database; Jobs numbers rounded to nearest 100

Contact Information

City of Glendale
business@glendaleaz.com
623-930-2983

About the Data Sources

Commute shed boundaries are derived from the MAG travel demand forecasting models which incorporate the HERE speed database. Data can be found online here:
mag.ms2cloud.com/tcms.ui/ttds/dashboard/index?loc=Mag

U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-Year Estimates. ACS data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate is represented through the use of a margin of error (MOE). In addition to sampling variability, the ACS estimates are subject to nonsampling error. The MOE and effect of nonsampling error is not represented in these tables. Documentation can be found on the ACS website (www.census.gov/acs). The MOE can be found on the American FactFinder website (<http://factfinder2.census.gov>).

Methodology for the Arizona Office of Economic Opportunity population estimates is available at:
<https://population.az.gov/population-estimates>

Methodology for MAG Population Projections is available at:
<http://datacenter.azmag.gov>

Documentation for the LEHD Origin-Destination Employment Statistics (LODES) is available at:
<https://lehd.ces.census.gov/>

2015 MAG Employer Database: Includes only employers with 5 or more employees.

Created by
Maricopa Association of Governments (MAG)
602-254-6300 or mag@azmag.gov

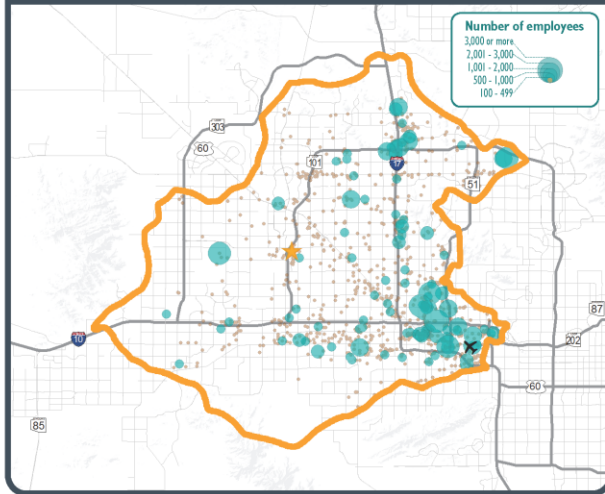
Commute Shed Analytics

30 Minute A.M. Inbound Travel Time to Glendale Avenue and State Route 101, Glendale



This report shows information for the area from which a worker can normally commute in 30 minutes or less to a location near Glendale Avenue and State Route 101, Glendale on a weekday morning. The boundary is referred to as a commute shed.

Employer Locations in the Commute Shed



Top Employers in the Commute Shed

The map to the left shows the locations of each employer with five or more employees within the commute shed. The size of the dot indicates the size of the employer based on its total number of employees.

18,100 **659,100**
Total Employers Total Jobs
For employers with five or more employees

Top 10 Employers	Jobs
State Of Arizona	18,600
Banner Health	13,600
County Of Maricopa	11,100
City Of Phoenix	10,400
Honeywell	7,800
Walmart	7,000
Frys Food Stores	5,600
American Express	5,500
United States Department Of The Air Force	5,400
Wells Fargo	5,000

Source: 2015 MAG Employer Database, numbers rounded

Top 10 Industry Clusters

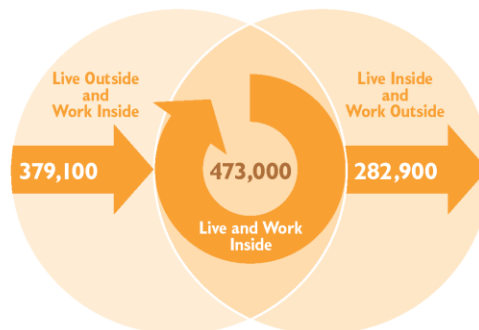
Industry Clusters group employers by their main industry. Listed below are the top ten industry clusters for businesses located within the commute shed. Ranking is based on total jobs for each cluster within the commute shed.

Industry Cluster	Businesses	Jobs
Health Care	1,750	76,200
Business Svcs	2,270	74,100
Government, Social, & Advocacy Svcs	1,590	73,500
Retail	2,280	69,600
Consumer Svcs	2,800	60,500
Education	780	56,900
Finance, Insurance, & Real Estate (FIRE)	1,270	56,600
Construction	2,020	55,600
Transportation & Distribution	1,410	55,100
Hospitality, Tourism, & Recreation	450	14,700

Source: 2015 MAG Employer Database; Jobs numbers rounded to nearest 100

Worker Commute Flows

for workers living and/or working in the commute shed




Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program (LEHD) Origin-Destination Employment Statistics (LODES)

Major Occupations of Residents in the Commute Shed for the civilian employed population (workers) 16 years and over

Occupation Category	Workers	Occupation Category	Workers
Arts, design, entertainment, sports, and media	11,000	Installation, maintenance, and repair	31,900
Building and grounds cleaning and maintenance	47,700	Management, business, and financial	104,300
Community, legal, and social service	21,300	Material moving	24,200
Computer, engineering, and science	33,800	Office and administrative support	127,500
Construction and extraction	51,400	Personal care and service	32,200
Education, training, and library	37,500	Production	42,200
Farming, fishing, and forestry	2,600	Protective service	19,500
Food preparation and serving related	50,700	Sales and related	93,900
Healthcare practitioners, technical, and support	57,600	Transportation	31,300

Source: U.S. Census Bureau, 2011-2015 American Community Survey (ACS) 5-year Estimates

Population and Housing Demographics for the Commute Shed



Year	Population
2015	1,889,000
2020	2,069,000
2030	2,359,000
2040	2,544,000
2050	2,663,000

Sources: Arizona Office of Economic Opportunity; Maricopa Association of Governments (MAG)

Year	Jobs
2015	863,000
2020	984,000
2030	1,107,000
2040	1,258,000
2050	1,403,000

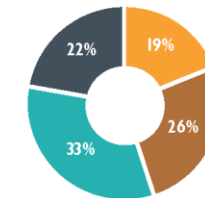
Source: Maricopa Association of Governments

Median Home Sales Price



Source: Information Market

Highest Level of Education for the population age 25 years and older



- No High School Diploma
- High School Grad or Equivalent
- Some College or Associate Degree
- Bachelor Degree or Higher

Source: U.S. Census Bureau, 2015 American Community Survey (ACS) 5-year Estimates

Median Age of Residents



Source: 2015 ACS 5-year Estimates

Median Household Income



Source: 2015 ACS 5-year Estimates

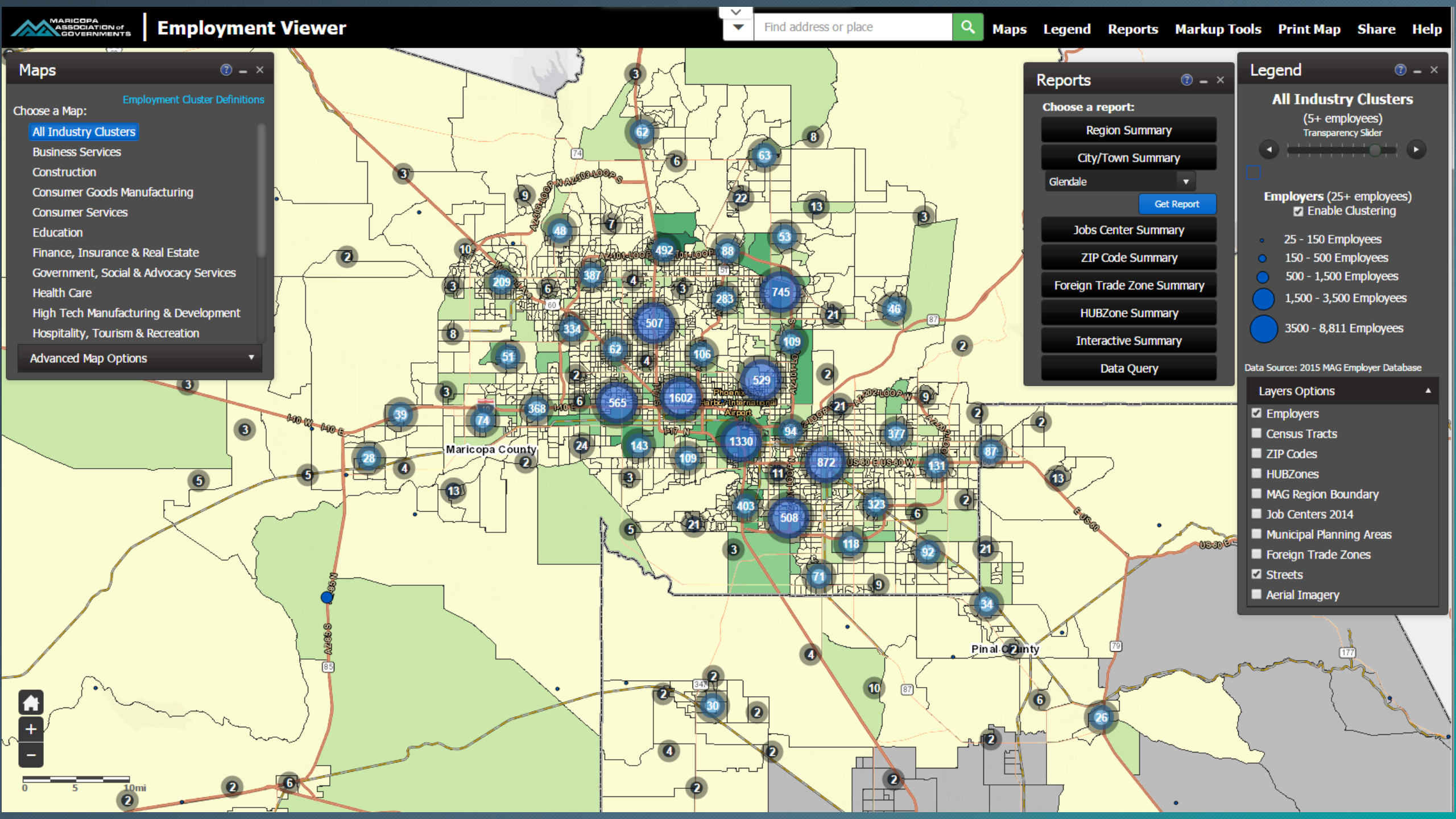
Contact Information

City of Glendale
business@glendaleaz.com
623-930-2983

Commute shed boundaries are derived from the MAG travel demand forecasting models which incorporate the HERE speed database. Boundaries are created using three hour morning peak drive times (6AM to 9AM). Data can be found online here: <http://mag.ms2cloud.com/ttdms/ui/ttds/dashboard/index?loc=MAG>

2015 MAG Employer Database: Includes only employers with 5 or more employees.

Created by
Maricopa Association of Governments (MAG)
602-254-6300 or mag@azmag.gov





Jami Dennis

Senior IS Project Manager

(602) 254-6300

jdennis@azmag.gov



Anubhav Bagley

Information Services Manager

(602) 254-6300

abagley@azmag.gov